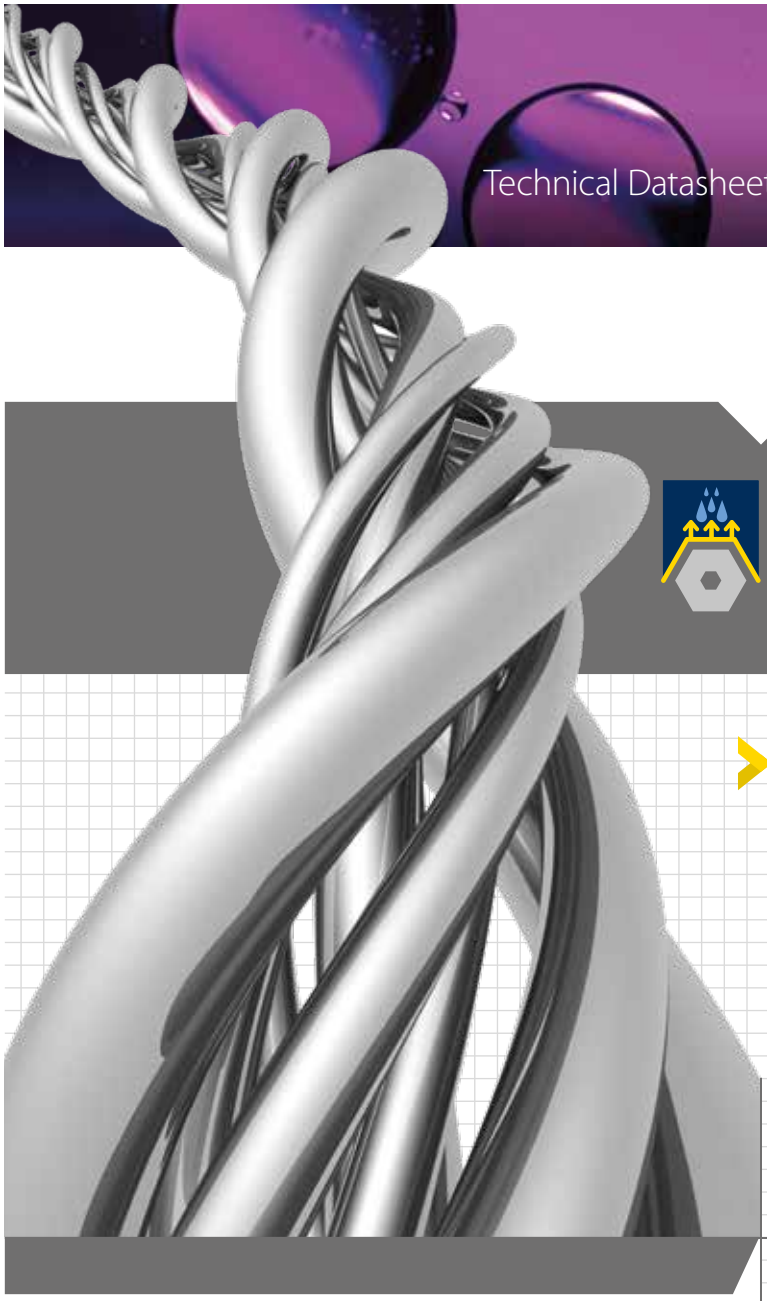
alloy wire® international



INCOLOY® 825

Key Features

Resistant to reducing environments such as those containing sulphuric and phosphoric acids

Resistant to a variety of oxidising substances such as nitric acid and nitrates

Resistant to chloride-ion stress corrosion cracking and, pitting & crevice corrosion

Good for chemical processing

IMPORTANT
We will manufacture to your required mechanical properties.

key advantages to you, *our customer*

RANGE
0.025mm to 21mm
(.001" to .827")

3m 3t
Order 3m to 3t
(10 ft to 6000 Lbs)

DELIVERY 3 WEEKS
Delivery:
within 3 weeks

Wire to your spec

E.M.S available

HOW CAN I HELP?
Technical support

INCOLOY® 825 available in:-

- Round wire
- Bars or lengths
- Flat wire
- Shaped wire
- Rope/Strand

Packaging

- Coils
- Spools
- Bars or lengths

®Trade name of Special Metals Group of Companies.

Technical Datasheet **AWS 022 Rev.2**

INCOLOY® 825

alloy wire international

Chemical Composition		
Element	Min %	Max %
Ni	38.00	46.00
Co	-	2.00
Cu	1.50	3.00
Cr	19.50	23.50
Mo	2.50	3.50
Al	-	0.20
C	-	0.05
Si	-	0.50
Mn	-	1.00
S	-	0.03
Ti	0.60	1.20
Fe	BAL	

Specifications

ASTM B425
BS 3075 NA 16
BS 3076 NA 16
ISO 15156-3
(NACE MR 0175)

Designations

W.Nr. 2.4858
UNS N08825
AWS 022

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Typical Applications

Chemical Processing
Nuclear Fuel
Reprocessing
Acid Production
Pickling Equipment

Density	8.14 g/cm^3	0.294 lb/in^3
Melting Point	1400 °C	2550 °F
Coefficient of Expansion	14.0 µm/m °C (20 – 100 °C)	7.8 x 10^{-6} in/in °F (70 – 212 °F)
Modulus of Rigidity	75.9 kN/mm^2	11009 ksi
Modulus of Elasticity	196 kN/mm^2	28428 ksi

Heat Treatment of Finished Parts					
Condition as supplied by Alloy Wire	**Type**	**Temperature**		**Time (Hr)**	**Cooling**
		°C	**°F**		
Annealed or Spring Temper	Stress Relieve	450 – 470	840 – 880	0.5 – 1	Air

Properties				
Condition	**Approx. tensile strength**		**Approx. operating temperature**	
	N/mm^2	**ksi**	**°C**	**°F**
Annealed	<800	<116	-100 to +250	-145 to +480
Spring Temper	800 – 1100	116 – 159	-100 to +250	-145 to +480

The above tensile strength ranges are typical. If you require different please ask.

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